

WHAT IS CLAIMED IS:

1. A sunshade for a vehicle, comprising:

a housing;

first mounting means for mounting said housing on a vehicle window;

a drum member, rotatably mounted with respect to said housing;

a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member; and

a retraction mechanism for enabling said shade element to be moved from a first, fully retracted position wherein most of said shade element is wrapped about said drum member and a second, extended position wherein said shade element is at least partially unwrapped from said drum member, said retraction mechanism comprising:

a biasing mechanism for biasing said drum member so that said shade element is urged toward said first, retracted position, and

an arresting mechanism, said arresting mechanism being constructed and arranged so as to permit said drum member to be stopped when said shade element is in said second, extended position and in any of a plurality of predetermined intermediate positions that are between said first, fully retracted position and said second, extended position, said arresting mechanism further comprising controlled retraction structure for permitting a consumer to partially retract said shade element by a controlled predetermined distance;

whereby said weblike shade element may be utilized in more than one position wherein it is not being actively biased toward the retracted position.

2. A sunshade according to claim 1, wherein said housing is shaped and sized so as to preclude a person from being able to touch a portion of said shade element that is wrapped about said drum member, whereby the possibility of the person's fingers being pinched is reduced.

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102(b)
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housing 8
drum member 1
shade element 12
a biased retraction & arresting mechanism
2, 5, 4
3, 6, 1, 65
71, 72, 70
7, 32, 11
31
first mounting means 82, 83

3. A sunshade according to claim 1, wherein said shade element has visible indicia provided thereon for purposes that are selected from the group consisting of informational purposes, educational purposes and entertainment purposes.

4. A sunshade according to claim 3, further comprising at least one marker element, and wherein said marker element and said shade element are constructed so that said marker element may be affixed to said shade element by a consumer

5. A sunshade according to claim 4, wherein said marker element and said shade element are constructed so that said marker element is removably affixable to said shade element by a consumer, whereby the consumer will be able to remove said marker element from said shade element at some point in time after affixing it thereto.

6. A sunshade according to claim 4, wherein said marker element is sized and shaped so as to be functionally consistent with said visible indicia that is provided on said shade element.

7. A sunshade according to claim 1, further comprising at least one marker element, and wherein said marker element and said shade element are constructed so that said marker element may be affixed to said shade element by a consumer.

8. A sunshade according to claim 7, wherein said marker element and said shade element are constructed so that said marker element is removably affixable to said shade element by a consumer, whereby the consumer will be able to remove said marker element from said shade element at some point in time after affixing it thereto.

9. A sunshade according to claim 1, wherein said biasing mechanism comprises a spring that is functionally interposed between said housing and said drum member.

10. A sunshade according to claim 1, further comprising a control element, actuatable by a consumer, for disengaging said arresting mechanism, whereby said drum member will be urged by said biasing mechanism to cause said shade element to retract.

11. A sunshade according to claim 10, wherein said control element and said arresting mechanism are constructed and arranged to permit the consumer to actuate said control element in a first manner so as to cause said shade element to be retracted completely to said first, retracted position or in a second manner, so as to cause said controlled retraction structure to reengage in order to stop the retraction of said shade element in one of said intermediate positions.

12. A sunshade according to claim 11, wherein said control element and said arresting mechanism are constructed and arranged so that said first manner comprises actuating said control element for a first period of time and said second manner comprises actuating said control element for a second period of time that is less than said first period of time.

13. A sunshade according to claim 11, wherein said control element comprises a mechanical element that is depressible by the consumer, and said control element and said arresting mechanism are constructed and arranged so that said first manner comprises depressing said control element by a first distance and said second manner comprises depressing said control element by a second distance that is less than said first distance.

14. A sunshade according to claim 11, wherein said retraction mechanism further comprises a first clutch member and a second clutch member, and wherein said controlled retraction structure comprises releasable structure for preventing rotation of said first clutch member with respect to said housing.

15. A sunshade according to claim 14, wherein said control element comprises a mechanical element that is depressible by the consumer, and wherein said retraction mechanism is constructed and arranged so that depression of said mechanical element by the consumer by a first distance will disengage said first clutch member from said second clutch member, whereby said shade element will be permitted to retract.

16. A sunshade according to claim 15, wherein said controlled retraction structure comprises structure for stopping rotation of said first clutch member with respect to said housing after permitting a limited amount of such rotation to occur.

17. A sunshade according to claim 16, wherein said controlled retraction structure is constructed and arranged so as to release said releasable structure for preventing rotation of said first clutch member with respect to said housing when said mechanical element is depressed by the consumer by a second distance that is less than said first distance, whereby said first clutch member will be permitted to rotate a limited distance in order to partially retract said shade element before being stopped by said controlled retraction structure.

18. A sunshade according to claim 16, wherein said controlled retraction structure is constructed and arranged to stop rotation of said first clutch member with respect to said housing after permitting no more than one rotation of said clutch member with respect to said housing to occur.

19. A sunshade according to claim 1, further comprising gripping means mounted to a distal end of said shade element for facilitating gripping of said shade element by a consumer.

20. A sunshade according to claim 19, further comprising second mounting means, attached to said gripping means, for mounting said gripping means to a vehicle window, and wherein said gripping means and said second mounting means are constructed and arranged so as to facilitate

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disengagement of said second mounting means from the vehicle window by manipulating said gripping means.

21. A sunshade according to claim 20, wherein said second mounting means comprises more than one suction cup.

22. A sunshade according to claim 20, wherein said second mounting means comprises a suction cup, and wherein said gripping means is shaped, sized and attached to said suction cup in such a manner so as to permit the consumer to disengage said suction cup from the vehicle window by pulling on one end of said gripping means in a lever action.

23. A sunshade assembly for a vehicle, comprising:
a flexible, weblike shade element;
mounting structure that is constructed and arranged to facilitate mounting of said shade element on a vehicle window; and
at least one marker element, said marker element and said shade element being constructed so that said marker element may be affixed to said shade element by a consumer.

24. A sunshade assembly according to claim 23, wherein said shade element has visible indicia provided thereon for purposes that are selected from the group consisting of informational purposes, educational purposes and entertainment purposes.

25. A sunshade assembly according to claim 24, wherein said marker element is sized and shaped so as to be functionally consistent with said visible indicia that is provided on said shade element.

26. A sunshade assembly according to claim 24, wherein said marker element and said shade element are constructed so that said marker element is removably affixable to said shade element

by a consumer, whereby the consumer will be able to remove said marker element from said shade element at some point in time after affixing it thereto.

27. A sunshade for a vehicle, comprising:

a housing;

first mounting means for mounting said housing on a vehicle window;

a drum member, rotatably mounted with respect to said housing;

a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member;

a retraction mechanism for enabling said shade element to be moved to any one of a number of different positions including a first, retracted position wherein most of said shade element is wrapped about said drum member and a second, extended position wherein said shade element is at least partially unwrapped from said drum member; and wherein

said housing is shaped and sized so as to preclude a person from being able to touch a portion of said shade element that is wrapped about said drum member, whereby the possibility of the person's fingers being pinched is reduced.

28. A sunshade for a vehicle, comprising:

a housing;

at least two suction cups, attached to said housing, for mounting the sunshade to a vehicle window;

a drum member, rotatably mounted with respect to said housing;

a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member;

a retraction mechanism for enabling said shade element to be moved to any one of a number of different positions including a first, retracted position wherein most of said shade element is wrapped about said drum member and a second, extended position wherein said shade element is at least partially unwrapped from said drum member; and wherein

said housing is shaped so as to obstruct view of said at least two suction cups from within the vehicle when the sunshade is mounted to the vehicle window, whereby small children will be less likely to be tempted to interfere with said suction cups.

29. A sunshade according to claim 28, wherein said housing is further shaped so as to at least partially impede access to said suction cups when the sunshade is mounted to the vehicle window, thereby making it more difficult for small children to interfere with the attachment of the suction cups to the vehicle window.

30. A sunshade for a vehicle, comprising:

a housing;

first mounting means for mounting said housing on a vehicle window;

a drum member, rotatably mounted with respect to said housing;

a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member;

a retraction mechanism for enabling said shade element to be moved to any one of a number of different positions including a first, retracted position wherein most of said shade element is wrapped about said drum member and a second, extended position wherein said shade element is at least partially unwrapped from said drum member;

a gripping member, mounted to a distal end of said shade element, for facilitating gripping of said shade element by a consumer; and

second mounting means, attached to said gripping member, for mounting said gripping member to a vehicle window, and wherein said gripping member and said second mounting means are constructed and arranged so as to facilitate disengagement of said second mounting means from the vehicle window by manipulating said gripping member.

31. A sunshade for a vehicle according to claim 30, wherein said second mounting means comprises at least one suction cup that is attached to said gripping member, and wherein said

gripping member is shaped so as to provide a lever arm of sufficient length to permit a consumer to conveniently disengage said suction cup from a vehicle window.

32. A sunshade for a vehicle according to claim 31, wherein said second mounting means comprises two of said suction cups, said suction cups been aligned with each other along a common axis, and wherein said gripping member is shaped so that said lever arm extends for a distance that is perpendicular to said common axis.

33. A sunshade for a vehicle according to claim 32, wherein each of said suction cups are constructed and arranged so as to have a force of adhesion to a vehicle window that is within a range of about 0.1 lb. of force to about 3.5 lb. of force

34. A sunshade for a vehicle according to claim 33, wherein each of said suction cups are constructed and arranged so as to have a force of adhesion to a vehicle window that is within a range of about 0.5 lb. of force to about 2.8 lb. of force.

35. A sunshade for a vehicle according to claim 32, wherein said gripping member is shaped so that said lever arm extends for a distance that is within a range of about 0.4 in. to about 2.5 in.

36. A sunshade for a vehicle according to claim 35, wherein said gripping member is shaped so that said lever arm extends for a distance that is within a range of about 0.5 in. to about 1.5 in.

37. A sunshade for a vehicle according to claim 31, wherein said at least one suction cup is integrally molded with said gripping member.

38. A sunshade for a vehicle having at least one vehicle door and a vehicle window that can be raised and lowered out of and into the door, comprising:

a housing;

first mounting means for mounting said housing on a first portion of the vehicle window;
a drum member, rotatably mounted with respect to said housing;
a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member;

a retraction mechanism for enabling said shade element to be moved to any one of a number of different positions including a first, retracted position wherein most of said shade element is wrapped about said drum member and a second, extended position wherein said shade element is at least partially unwrapped from said drum member;

a gripping member, mounted to a distal end of said shade element, for facilitating gripping of said shade element by a consumer; and


second mounting means, attached to said gripping member, for mounting said gripping member to a second portion of the vehicle window, and wherein said gripping member and said second mounting means are constructed and arranged so as to facilitate disengagement of said second mounting means from the second portion of the vehicle window when the second portion of the vehicle window is attempted to be lowered into the vehicle door.

39. A sunshade for a vehicle according to claim 38, wherein said second mounting means comprises at least one suction cup that is attached to said gripping member, and wherein said gripping member is shaped so as to provide a lever arm of sufficient length to engage the vehicle door in order to disengage said suction cup from the second portion of the vehicle window when the vehicle window is attempted to be lowered into the vehicle door.

40. A sunshade for a vehicle according to claim 39, wherein said suction cup and said gripping member are configured so that said gripping member will engage the vehicle door before said suction cup when the vehicle window is attempted to be lowered into the vehicle door.

41. A sunshade for a vehicle, comprising:
a housing;

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first mounting means for mounting said housing on a vehicle window;
a drum member, rotatably mounted with respect to said housing;
a flexible, weblike shade element, said shade element being positioned so as to be wrapable about said drum member; and
a retraction mechanism for enabling a consumer using just one hand to move the shade element to any one of a plurality of different predetermined indexed positions including a first, retracted position wherein most of said shade element is wrapped about said drum member, a second, extended position wherein said shade element is at least partially unwrapped from said drum member and at least one predetermined indexed intermediate position.

42. A sunshade according to claim 41, wherein said retraction mechanism includes a control element, actuatable by one hand of a consumer, for enabling the consumer to retract the shade element to the predetermined indexed intermediate position.

43. A sunshade according to claim 42, wherein said retraction mechanism is constructed and arranged to permit the consumer to actuate said control element in a first manner so as to cause said shade element to be retracted completely to said first, retracted position or in a second manner, so as to cause said retraction mechanism to reengage in order to stop the retraction of said shade element in said predetermined indexed intermediate position.

44. A sunshade according to claim 43, wherein said control element comprises a mechanical element that is depressible by the consumer, and said retraction mechanism is constructed and arranged so that said first manner comprises depressing said control element by a first distance and said second manner comprises depressing said control element by a second distance that is less than said first distance.